

IN THE CLAIMS

Claims 1-70 (canceled)

71 (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound forming radicals under the influence of actinic radiation, and from at least 10% by weight of a conductive inorganic pigment selected from the group consisting of magnetizable oxides of iron, phosphates of iron, phosphides of iron, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment, wherein the coating mixture is applied to obtain a layer thickness of 2 to 8 microns.

72. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound forming radicals under the influence of actinic radiation, and from at least 10% by weight of a conductive inorganic pigment selected from the group consisting of magnetizable oxides of iron, phosphates of iron, phosphides of iron, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment, wherein the substrate to be coated is a steel sheet which has previously been zinc-coated, chromated, pretreated with a composition that is free of chromate, or any combination thereof.

73. (new) The method as claimed in claim 71, wherein said coating and said curing are effected sequentially.

74. (new) A flexible metal sheet which is electrolytically zinc-coated or hot-dip coated or chromatized or pretreated with a composition that is free of chromate and has an organic layer applied thereto, which layer is prepared by the method as claimed in claim 71.

75. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture consisting of a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound forming radicals under the influence of actinic radiation, and at least 10% by weight of a conductive inorganic pigment selected from the group consisting of magnetizable oxides of iron, phosphates of iron, phosphides of iron, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment, wherein the coating mixture is applied to obtain a layer thickness of 2 to 8 microns.

76. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture consisting of a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound forming radicals under the influence of actinic radiation, and at least 10% by weight of a conductive inorganic pigment selected from the group consisting of magnetizable oxides of iron, phosphates of iron, phosphides of iron, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment and wherein the substrate to be coated is a steel sheet which has previously been zinc-coated, chromatized, pretreated with a composition that is free of chromate or any combination thereof.

77. (new) The method as claimed in claim 75, wherein said coating and said curing are effected sequentially.

78. (new) A flexible metal sheet which is electrolytically zinc-coated or hot-dip coated or chromated or pretreated with a composition that is free of chromate and has an organic layer applied thereto, which layer is prepared by a method comprising applying a mixture consisting of a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound forming radicals under the influence of actinic radiation, and at least 10% of a conductive inorganic pigment selected from the group consisting of magnetizable oxides of iron, phosphates of iron, phosphides of iron, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment.

79. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound that forms radicals under the influence of actinic radiation, and at least 10% by weight of a conductive inorganic selected from the group consisting of oxides of iron, phosphates of iron, phosphides of iron, oxides of aluminum, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment, wherein the coating mixture is applied to obtain a layer thickness of 2 to 8 microns.

80. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound that forms radicals under the influence of actinic radiation, and at least 10% by weight of a conductive inorganic selected from the group consisting of oxides of iron, phosphates of iron, phosphides of iron, oxides of aluminum, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied

mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment and wherein the substrate to be coated is a steel sheet which has previously been zinc-coated, chromatized, pretreated with a composition that is free of chromate, or any combination thereof.

81. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound that forms radicals under the influence of actinic radiation, and at least 10% by weight of a conductive inorganic selected from the group consisting of oxides of iron, phosphates of iron, phosphides of iron, oxides of aluminum, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment, and wherein said coating and said curing are effected in one step.

82 (new) A flexible metal sheet which is electrolytically zinc-coated or hot-dip coated or chromatized or pretreated with a composition that is free of chromate and has an organic layer applied thereto, which layer can be obtained by a method comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound that forms radicals under the influence of actinic radiation, and from at least 10% by weight of a conductive inorganic selected from the group consisting of oxides of iron, phosphates of iron, phosphides of iron, oxides of aluminum, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the slidable anticorrosive layer is electroconductive and the electroconductivity of the layer is provided only by said inorganic pigment.

83. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound forming radicals under the influence of actinic radiation, and at least 10% by weight of a conductive inorganic pigment selected from the group consisting of magnetizable oxides of iron, phosphates of iron, phosphides of iron, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the layer is electroconductive and the electroconductivity is provided only by said conductive inorganic pigment.

84. (new) The method as claimed in claim 83, wherein the substrate to be coated is a steel sheet which has previously been zinc-coated, chromitized, pretreated with a composition that is free of chromate or any combination thereof, wherein the coating mixture is applied to obtain a layer thickness of 2 to 8 μm .

85. (new) The method as claimed in claim 83, wherein said coating and said curing are effected sequentially and wherein the coating mixture is applied to obtain a layer thickness of 2 to 8 μm .

86. (new) A flexible metal sheet which is electrolytically zinc-coated or hot-dip coated or chromitized or pretreated with a composition that is free of chromate and has an organic layer applied thereto, which layer is prepared by the method as claimed in claim 83.

87. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture consisting of a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound forming radicals under the influence of actinic radiation, and at least 10% by weight of a conductive inorganic pigment selected from the group consisting of magnetizable oxides of iron, phosphates of iron, phosphides of iron, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the layer is electroconductive and the

electroconductivity is provided only by said conductive inorganic pigment.

88. (new) The method as claimed in claim 87, wherein the substrate to be coated is a steel sheet which has previously been zinc-coated, chromitized, pretreated with a composition that is free of chromate or any combination thereof, and wherein the coating mixture is applied to obtain a layer thickness of 2 to 8 microns.

89. (new) The method as claimed in claim 87, wherein said coating and said curing are effected sequentially and wherein the coating mixture is applied to obtain a layer thickness of 2 to 8 microns.

90. (new) A flexible metal sheet which is electrolytically zinc-coated or hot-dip coated, chromitized, pretreated with a composition that is free of chromate, or any combination thereof and has an organic layer applied thereto, which layer is prepared by the method as claimed in claim 63.

91. (new) A method of applying a slidable anticorrosive layer to a metallic substrate, comprising applying a mixture comprising a polymeric organic binder, a low-molecular monomeric liquid compound to be subjected to free-radical polymerization, a compound that forms radicals under the influence of actinic radiation, and least 10% by weight of a conductive inorganic selected from the group consisting of oxides of iron, phosphates of iron, phosphides of iron, oxides of aluminum, phosphates of aluminum, phosphides of aluminum, and graphite coated mica pigments to the surface of a metallic substrate and irradiating the applied mixture with actinic radiation of such an intensity and for such a period that a firm, hard, and sufficiently tough, corrosion-resistant layer is formed, wherein the layer is electroconductive and the electroconductivity is provided only by said inorganic pigment.

92. (new) The method as claimed in claim 91, wherein the substrate to be coated is a steel sheet which has previously been zinc-coated, chromitized, pretreated with a composition that is free of chromate or any combination thereof, and wherein the mixture is applied to obtain a layer thickness of 2 to 8 microns.

93. (new) The method as claimed in claim 91, wherein said coating and said curing are effected sequentially in one step and wherein the mixture is applied to obtain a layer

thickness of 2 to 8 microns.

94. (new) A flexible metal sheet which is electrolytically zinc-coated or hot-dip coated, chromitized, pretreated with a composition that is free of chromate or any combination thereof and has an organic layer applied thereto, which layer can be obtained by the method as claimed in claim 91.

95. (new) The method as claimed in claim 78, wherein said inorganic pigment comprises magnetizable iron oxide.

96. (new) The method as claimed in claim 87, wherein the conductive inorganic pigment comprises magnetizable iron oxide.

97. (new) The method as claimed in claim 83, wherein the conductive inorganic pigment comprises magnetizable iron oxide.

98. (new) The method of claim 71, wherein the layer is electroconductive, wherein, the pigment consists of magnetizable iron oxide.

99. (new) The method of claim 71, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

100. (new) The method of claim 71, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

101. (new) The method of claim 72, wherein the mixture comprises at least 20% by weight of said conductive inorganic pigment.

102. (new) The method of claim 72, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

103. (new) The method of claim 75, wherein the mixture comprises at least 20% by weight of said conductive inorganic pigment.

104. (new) The method of claim 75, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

105. (new) The method of claim 76, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

106. (new) The method of claim 76, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

107. (new) The method of claim 77, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

108. (new) The method of claim 77, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

109. (new) The method of claim 79, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

110. (new) The method of claim 79, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

111. (new) The method of claim 80, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

112. (new) The method of claim 80, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

113. (new) The method of claim 81, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

114. (new) The method of claim 81, wherein the mixture comprises at least 20% by weight of said conductive inorganic pigment.

115. (new) The method of claim 82, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

116. (new) The method of claim 82, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

117. (new) The method of claim 83, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

118. (new) The method of claim 83 wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

119. (new) The method of claim 87, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

120. (new) The method of claim 87, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.

121. (new) The method of claim 91, wherein the mixture comprises from at least 20% by weight of said conductive inorganic pigment.

122. (new) The method of claim 91, wherein the mixture comprises from at least 20% to at least 40% by weight of said conductive inorganic pigment.